

REMARKS

Claims 24, 27-29, 32, and 33-35 are pending. The Examiner's reconsideration of the rejections is respectfully requested in view of the remarks.

Applicants appreciate the Examiner's indication that Claims 26 and 31 are allowed and that Claims 34 and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 24 and 29 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Shin et al. (USPN 6,429,842) in view of Kim (USPN 6,400,424), and further in view of Kawaguchi (USPN 6,677,925). The Examiner stated essentially that the combined teachings of Shin, Kim, and Kawaguchi teach or suggest all the limitations of Claims 24 and 29.

Claims 24 and 29 claim, *inter alia*, "supplying the common electrode lines with a swinging common electrode voltage; and supplying an overshoot voltage to a voltage applied to each pixel in response to the first data voltage and the second data voltage upon a variation of a level of the swinging common electrode voltage, wherein a level of the voltage applied to each pixel is varied in response to the overshoot voltage."

Shin discloses TFTs formed in a zig-zag pattern centering around the respective gate lines, as shown in FIGS. 6, 7A, and 7B and the description of col. 3, lines 33-45. Shin does not teach or suggest "supplying an overshoot voltage to a voltage applied to each pixel in response to the first data voltage and the second data voltage upon a variation of a level of the swinging

common electrode voltage, wherein a level of the voltage applied to each pixel is varied in response to the overshoot voltage” as claimed in Claims 24 and 29.

Kim discloses common electrode lines 6 disposed between two adjacent gate lines 2 (see for example FIGS. 2 and 3). However, Kim does not disclose a top substrate common electrode of the present invention, much less “supplying an overshoot voltage to a voltage applied to each pixel in response to the first data voltage and the second data voltage upon a variation of a level of the swinging common electrode voltage, wherein a level of the voltage applied to each pixel is varied in response to the overshoot voltage” as claimed in Claims 24 and 29.

Indeed, as noted in the Final Office Action, Shin and Kim do not disclose supplying an overshoot voltage to data voltage upon a variation of a level of the swinging common electrode voltage, wherein a level of the voltage applied to each pixel is varied in response to the overshoot voltage.

Referring now to Kawaguchi; Kawaguchi teaches that the amplitude of a common electrode signal (a common voltage) Vcom can be suppressed to cause the voltage waveform applied to the common electrode Tcom to conform with the rectangular-shaped reference voltage waveform (see for example, col. 18, lines 29-35). As shown in FIG. 2 of Kawaguchi, the common voltage Vcom is applied to both a liquid crystal capacitor C1 and a supplementary capacitor Cs. However, since the Claims 24 and 29 relate to a method for driving a liquid crystal display having an independent wiring structure (see for example, page 4, lines 6-9 of the specification), a liquid crystal capacitor C1c is supplied with a top substrate common electrode voltage V_{CF-com} (corresponding to the common voltage of the Kawaguchi) and a storage capacitor Cst is supplied with a swinging common electrode voltage from a common electrode line. At this time, the top substrate common electrode voltage V_{CF-com} is a DC voltage (about 2.5V) (see

Equations 4-9, and FIG. 5). That is, a structure of a liquid crystal display device of Kawaguchi is different form that of the present invention, wherein a voltage applied to the storage capacitor Cst differs from that applied to the liquid crystal capacitor Clc. Kawaguchi only teaches that the common voltage swings as shown in FIGS. 3 and 4, and that the swing common voltage is applied to the liquid crystal capacitor Cl (see FIG. 2) that is also supplied with a data voltage. Kawaguchi does not teach or suggest a separate an overshoot voltage, much less "supplying an overshoot voltage to a voltage applied to each pixel in response to the first data voltage and the second data voltage upon a variation of a level of the swinging common electrode voltage, wherein a level of the voltage applied to each pixel is varied in response to the overshoot voltage" as claimed in Claims 24 and 29.

The combined teachings of Shin, Kim, and Kawaguchi teach a driving circuit for reversal of liquid crystal voltages. The combined teachings of Shin, Kim, and Kawaguchi fail to teach or suggest that "supplying an overshoot voltage to a voltage applied to each pixel in response to the first data voltage and the second data voltage upon a variation of a level of the swinging common electrode voltage, wherein a level of the voltage applied to each pixel is varied in response to the overshoot voltage" as claimed in Claims 24, and 29. Accordingly, Claims 24 and 29 are believed to be in condition for allowance. Reconsideration of the rejection is respectfully requested.

Claims 27, 28, 32, and 33 have been rejected under 35 USC 103(a) as being unpatentable over Kawaguchi, Shin, and Kim as applied to Claims 24 and 29 above, and further in view of Moon et al. (USPN 6,421,039). The Examiner stated essentially that the combined teachings of Kawaguchi, Shin, Kim and Moon teach or suggest all the limitations of Claims 27, 28, 32, and

33.

Claims 27 and 28 depend from Claim 24. Claims 32 and 33 depend from Claim 29. The dependent claims are believed to be allowable for at least the reasons given for Claims 24 and 29. Reconsideration of the rejection is respectfully requested.

For the forgoing reasons, the present application, including Claims 24, 27-29, 32, and 33-35 is believed to be in condition for allowance. The Examiner's early and favorable action is respectfully urged.

Respectfully submitted,

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